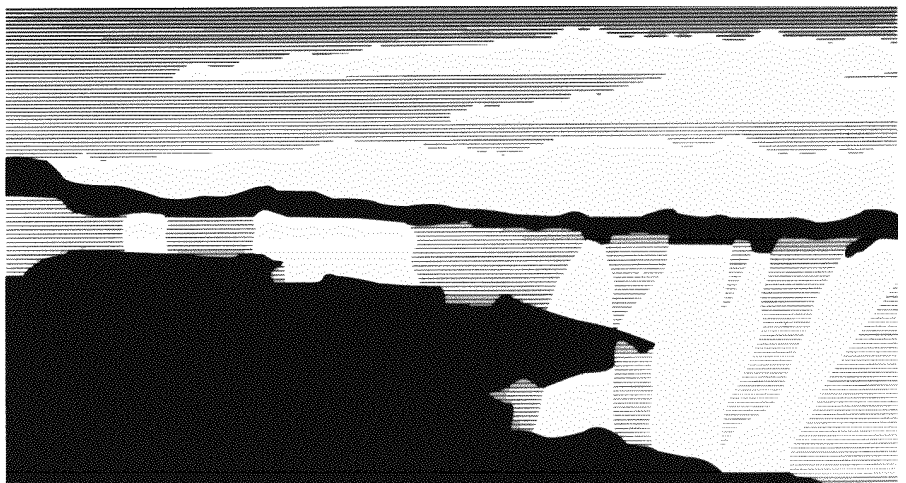


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*Author(s):* Jacqueline M. Stack

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# **Change, Chaos and Quality: Strategic Partners**

by

Jacqueline M. Stack  
Los Alamos National Laboratory Research Library

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## **Abstract**

*The Los Alamos National Laboratory Research Library is implementing a quality based business management process for strategic and operational planning. The purpose of this approach is to manage change and improvement using a consistent methodology that leads toward a defined strategic direction. This paper will outline the philosophy, progress and issues involved in implementing this planning process. Effective decision making is essential to the future success of the Research Library. The Library must provide products and services that most effectively enhance customers' access to and usability of information. Changes, both in the information industry and in the local business arena, are providing an opportunity for the Research Library to do business in a new way. Continuous customer feedback, process data analysis, and a consistent strategic business planning process are essential for the Library to be a vital resource in these chaotic times and to successfully plan for the future.*

## **Overview**

The mission of the Los Alamos National Laboratory Research Library is: "In partnership with library customers, we facilitate access to and enhance the usability of information that contributes to our mutual success". The Los Alamos National Laboratory Research Library was formed in 1943 to support the Laboratory's research, and it has continued to provide this support through more than fifty years of national and worldwide change. Research Library products include books, journals, technical reports and electronic databases. Services supporting the Research Library mission include library training, on-line literature searches, information and document delivery.

## **External Change Factors**

The Research Library needs to change to effectively keep up with extensive movement in the information industry.

- The publishing field is in turmoil from the widespread cancellation of library journals. As libraries cut back the number of print journals due to budget constraints and inflationary cost increases, they are relying on other services such as document delivery to provide information.

- The on-line product vendors have increased marketing and sales of their products and services to the end-users.
- The increasing pace of growth of computing power and the expansion of network capabilities has affected the way end-users search for information. The Internet and World Wide Web have provided more electronic availability of information for the end-user.
- Competition for libraries, in many instances, comes from the scientific community bypassing traditional information sources. For example, scientists are publishing papers in the High Energy Preprint Database initiated at Los Alamos National Laboratory. Paul Ginsparg, the database founder is planning to initiate a process to referee these preprints in the near future to provide an opportunity for high energy physicists to publish papers in an alternative method from traditional journals.

The local business arena at Los Alamos has also changed significantly over the past five years.

- Since 1993, there has been pressure to cut “support group” budgets and increase productivity with fewer staff and less money. These diminished resources, in addition to the double digit inflation rate for collection materials, have given the Research Library a real challenge. How does the Research Library continue to be a viable resource with an accelerated rate of diminishing budgetary resources?
- During the past few months, the Laboratory has started to consider the possibility of outsourcing many services. Given this potential scenario, what is the most effective way for the Research Library to position itself for survival in a changing Laboratory?
- Research customer demands are changing as the Laboratory responds to the changing needs in the international arena. The Laboratory is responding to a growing emphasis on potential collaboration with industry, and changing national priorities as a result of the end of the cold war and the U. S. policy to stop testing nuclear devices.

## **Quality Planning Background**

In May 1991, the Research Library began its journey into the quality arena. All staff were enrolled in a Continuous Quality Improvement, (CQI) class based on the Deming philosophy for quality management. The Deming philosophy emphasizes making process changes based on data about the process and customer feedback. During the next three years seven CQI teams evaluated and improved several key Library processes including journal photocopy delivery, new books processing and circulation, report delivery and standing order book processing. Each team evaluated its process by flowcharting all process steps and obtaining customer satisfaction/importance feedback. The teams identified potential problems, completed a cause and effect analysis and tested theories for improvement. They then made changes to the process one step at a time based on test data supporting the improvements. All of the teams made significant improvements to their processes using this approach.

## **Strategic Business Management Planning: Processes**

In early 1995 the Research Library made the decision to systematically apply the knowledge gained from the CQI methodology to all key Library products and services and to implement a strategic business management planning process. The Library hired a quality consultant, Prism Q Inc., to determine the appropriate methodology. The Library management selected two teams to begin the task of defining and documenting their work processes and implemented a method for continuous customer feedback. The teams established and charted metrics for each work process and determined performance values based on these metrics. The Research Library accelerated the process to the other four Library teams in August 1995 as a result of the success of the initial teams' progress, and pressure to react to major Library budget cuts. All Library teams have now completed implementation of the process to: define, flow chart, obtain customer feedback and measure the key quality process characteristics identified by the customers.

As the individual teams worked on their process, staff provided input on Library level issues. The Research Library mission, products and services, and desired business results were defined. Library staff provided input for the mission over a period of six months before the present version was finalized. The Library Director was responsible for establishing the vision to set the future direction for the Library. The desired business results defined the outcomes we expect to be achieved as a result of the production and delivery of Research Library products and services. They focus on six areas:

- Productivity
- Customer satisfaction/loyalty
- Value added products and services
- High performance workforce
- Prestigious reputation
- Compliance and fiscal responsibility.

Each of these desired business results has been defined, and a metric established to measure progress. This information has been shared with the Research Library staff, and the Library sponsors, the Computing, Information and Communications management.

### **Customer Feedback Program**

The Research Library initiated an active continuous customer feedback program to gain knowledge about customer needs and satisfaction with Library products and services.

- Team members continuously consulted with customers to identify the important characteristics of their processes. In general, customers have indicated that they are concerned with the timeliness of product delivery, quality of the inventory, and accuracy of products and services received. Teams have also periodically consulted with customers to determine the importance and satisfaction of the products and services they deliver.
- The Research Library implemented a process to track and evaluate unsolicited customer feedback to evaluate potential opportunities for change. As a result of customer feedback data, Library staff successfully identified potential problems at an early stage. For example, customers started complaining that the current issue of their favorite journal did not appear on the shelves when they were expecting it. Research Library staff tracked the problem and determined that a budget cut in the Laboratory mailroom delayed delivery by approximately three weeks. Library staff met with the mailroom staff and presented them with process and customer data. The problem was discussed and resolved within two weeks.
- The Research Library obtained customer data from a survey sent to 25% of the customer base. The survey, a one page questionnaire, asked questions about the customer satisfaction and importance level of each of the major products and services. The survey also provided customer feedback on the satisfaction and importance of the overall portfolio of library products and services.

### **Near Term Future Planning**

The Research Library is implementing the methodology for an effective planning process to improve our products and service with a defined strategic direction in mind. In March, 1996, the Library will complete its first performance assessment, based on the data collected from all Library processes, desired business results, and customer feedback. A team of Research Library managers, team leaders and support staff will complete the assessment and begin to identify the planning process. During the assessment the planning team will identify process definitions and metrics. The team will also begin to evaluate the quality of the process metrics. The planning team will also assess customer satisfaction, and desired business results data. The team will compile the data, do a comparative assessment and consolidate the issues identified in the assessment to bring to the planning exercise.

In April the Library planning team will begin the formal planning process. The team will prioritize and evaluate the change issues identified in the performance assessment. A cause/effect analysis will be done for each individual issue. Some issues will involve operational changes (changes to today's business), while others will involve strategic changes (changes in new directions). The planning team will set goals, objectives and strategies and generate tactical plans for each strategic and operational issue. Process owners will be identified to take responsibility for each change issue, and each process owner will write a tactical action plan to accomplish the goal. These goals will be evaluated in relation to each other, to ensure that resources will be available to accomplish all of them. Business plan reviews will be held quarterly.

### **Library Changes Resulting from the Planning Process.**

The Research Library is changing the way it does business as a result of this planning process. The Library is moving from a repository/passive organization to a pro-active partnership with our customers to determine strategic directions for the future. This emphasis on customer relationships is continuously documented, measured and analyzed. Library staff are learning the importance of metrics and data to understand processes, and are providing valuable input on future strategic directions as well as improving today's processes. New opportunities are growing for staff to branch out into non-traditional Library areas provided by new technology initiatives and the quality planning process. Virtual teams are becoming more commonplace. These teams, consisting of members bringing complementary skills to work on an issue or project are formed to work on a specific project.

There are several factors important to the Research Library success in the future. Staff need to have the versatility to learn and take advantage of new directions to anticipate and meet future customers needs. They also need to work more closely in partnership with customers to meet our mutual goals. The Research Library needs to actively partner with suppliers and other information industry players to provide optimal products and services for our customers. A strong Library research and development component which complements and augments the strong service ethic will enhance customers' success using information technology. The principles of quality management and planning provide the base for our success in the future by improving our processes and customer responsiveness, and guiding the Research Library in the best strategic direction for our customers.

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